Project Delivery Method (PDM) Selection Guidance

Selection Checklist: Probable PDM

January 20, 2016
WSDOT Construction Division

Washington State Department of Transportation

Determining Probable PDM

Sequential tasks in the Checklist needed to determine Probable PDM:

- Pre-Work
- Selection Process Requirements
- Selection Process Timing
- Selection Checklist
- Probable PDM Endorsement Process

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Pre-Work Prior to Determining the Probable PDM

- Be thoroughly familiar with the Project Delivery Method Selection Guidance (PDMSG);
- PDM Attribute Comparison Spreadsheet in Appendix A – review the pros and cons of the three project delivery methods as they relate to different project attributes.
- Review Appendix B - Pre-Work
- Review Appendix C - How to use the Selection Checklist

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Pre-Work

- Develop/review the initial Project Summary Package, including or expanding as follows:
  1. Project Description and attributes such as scope, schedule and budget.
  2. Project Commitments, Decisions and Assumptions.
  3. Project Goals and Project Constraints.
  4. Preliminary Risks
  5. Summarize the project information using the Project Delivery Description Worksheet or something similar.

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Pre-Work

If the project contract cost is estimated to be less than $2 Million* then additional Project specific Pre-work is unnecessary and the Project Engineer will only need to fill out Part Ia and IV of the Selection Checklist.

*This limitation relates to Design-Build Contracts so the estimated contract cost includes the Construction and Design costs included in a potential Design-Build contract

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Project Commitments, Decisions and Assumptions

- Project Commitments: Know commitments and limitations to the project that may affect Project scope, risks, budget or schedule.
- Project Decisions: Decisions that cannot be changed due to Funding Source, Project Approval, Legislative Mandate or other sources that may affect Project scope, risks, budget or schedule.

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Project Commitments, Decisions and Assumptions

- Project Assumptions: A deduction based on incomplete Project information that may affect Project scope, risks, budget or schedule if there are changes.

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Questions?

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Project Goals

- What additional Project Goals (if any) are needed on the Project Delivery Description Worksheet?
- What goals would contribute to project success?

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Neutral Goals

- These are goals that have the same relative ability to be achieved, regardless of the PDM.

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Prioritize Goals

- Use H (high), M (medium) and L(low) to indicate the relative importance of your goals to a successful project.
- Pick out the goal you consider highest and assign it a H;
- Evaluate each goal by comparing it to your highest;
- Continue until all goals are ranked.

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Project Constraints

- Constraints differ from Project Goals in that they MUST be accomplished for project success;
- Evaluate the Highest Priority Project Goals (“H’s”) to determine if any are constraints;
- Project Commitments and Decisions may create “Constraints”;
- Constraints are not scored, they are Pass/Fail when evaluating the optimal PDM for the Project.
- Constraint tend to be rare in this process.

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Project Delivery Goals

- Project Delivery Goals are goals related to the characteristics of the PDMs.
- A Project Goal may be identical to a Project Delivery Goal or it may have a related goal determined by the Project Goal specifics, causes or risks;
- Project Delivery Goals are a refinement of the Project Goals and are used to evaluate the ability of the PDMs to meet the Project Goals based on the characteristics of the PDMs.

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Project Risks

- Preliminary Risks should be identified in the Project Summary Package;
- Utilize the WSDOT Risk Assessment webpage and/or Appendix A.6- Typical Transportation Project Risks List, General Project Risks Checklist;

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Questions?

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Probable PDM Selection Process Requirements

Estimated Project Cost	Required Process
• **Less than $2 Million (contract cost*)**	**Part I and IV of Selection Checklist**
• **Equal to or greater than $2 Million* but less than $25 Million**	**Part I, II, III and IV of Selection Checklist**
• $25 Million or greater, or • Parts II and III of the Checklist does not determine a Probable PDM	Selection Matrix

*This limitation relates to Design-Build Contracts so the estimated contract cost includes Construction and Design costs included in a potential Design-Build contract. Project Cost is used in all other cases.

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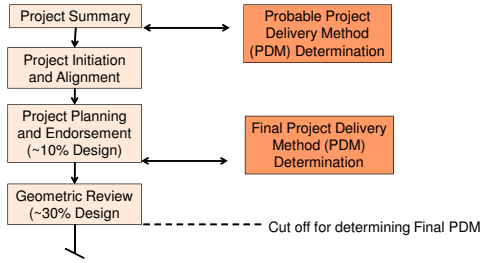
Recommended Timing for Determining Probable PDM



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Project Summary Package

- The Probable PDM determined by the Project Engineer shall be included in the Project Summary Package.

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Participation

- Project Engineer/Project Design Lead or Program Management staff assigned the Project Summary of the project.
- Regional Project Development Engineer's Representative(s) assigned the Project Definition of the project.
- Construction Project Engineer will consult as appropriate, if assigned.

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Probable PDM Determination Selection Checklist

- Review the Project Summary Package and other project information;
- Complete Selection Checklist Parts I & II;
- Identify Questions related to Goals and Constraints, if needed to clarify results;

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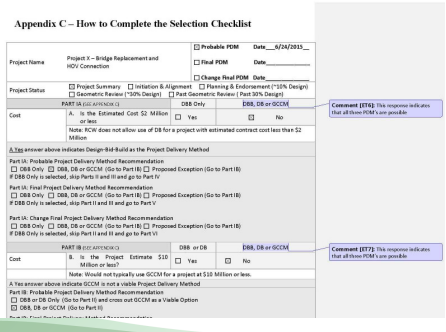
Selection Checklist Part I



Appendix C – How to Complete the Selection Checklist

Project Name	Project X – Bridge Replacement and HOV Connection	☒ Probable PDM ☐ Final PDM ☐ Change Final PDM	Date 6/24/2015 Date Date
Project Status	☒ Project Summary ☐ Initiation & Alignment ☐ Planning & Endorsement (~10% Design) ☐ Geometric Review (~30% Design) ☐ Past Geometric Review (Past 30% Design)		
PART IA (GUIDANCE)		DBB Only	DBB, DB or GCCM
Cost	A. Is the Estimated Cost $2 Million or less	☐ Yes	☒ No
	Note: RCW does not allow use of DB for a project with estimated contract cost less than $2 Million		

Comment [ET6]: This response indicates that all three PDM's are possible

A Yes answer above indicates Design-Bid-Build as the Project Delivery Method

Part IA: Probable Project Delivery Method Recommendation
☐ DBB Only ☒ DBB, DB or GCCM (Go to Part IB) ☐ Proposed Exception (Go to Part IB)
If DBB Only is selected, skip Parts II and III and go to Part IV

Part IA: Final Project Delivery Method Recommendation
☐ DBB Only ☐ DBB, DB or GCCM (Go to Part IB) ☐ Proposed Exception (Go to Part IB)
If DBB Only is selected, skip Part II and III and go to Part V

Part IA: Change Final Project Delivery Method Recommendation
☐ DBB Only ☐ DBB, DB or GCCM (Go to Part IB) ☐ Proposed Exception (Go to Part IB)
If DBB Only is selected, skip Part II and III and go to Part VI

PART IB (GUIDANCE)		DBB or DB	DBB, DB or GCCM
Cost	B. Is the Project Estimate $10 Million or less?	☐ Yes	☒ No
	Note: Would not typically use GCCM for a project at $10 Million or less.		

Comment [ET7]: This response indicates that all three PDM's are possible

A Yes answer above indicate GCCM is not a viable Project Delivery Method
Part IB: Probable Project Delivery Method Recommendation
☐ DBB or DB Only (Go to Part II and cross out GCCM as a Viable Option
☒ DBB, DB or GCCM (Go to Part II)

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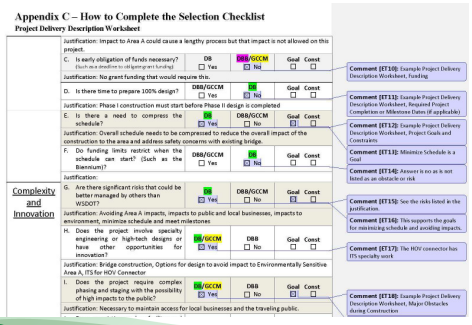
Selection Checklist Part II



Appendix C – How to Complete the Selection Checklist
Project Delivery Description Worksheet

Justification: Impact to Area A could cause a lengthy process but that impact is not allowed on this project.

C. Is early obligation of funds necessary? (Such as a deadline to obligate grant funding) — DB ☐ Yes; DBB/GCCM ☑ No; Goal ☐; Const ☐

Comment [ET10]: Example Project Delivery Description Worksheet, Funding

Justification: No grant funding that would require this.

D. Is there time to prepare 100% design? — DBB/GCCM ☐ Yes; DB ☑ No; Goal ☐; Const ☐

Comment [ET11]: Example Project Delivery Description Worksheet, Required Project Completion or Milestone Dates (if applicable)

Justification: Phase I construction must start before Phase II design is completed

E. Is there a need to compress the schedule? — DB ☑ Yes; DBB/GCCM ☐ No; Goal ☑; Const ☐

Comment [ET12]: Example Project Delivery Description Worksheet, Project Goals and Constraints

Justification: Overall schedule needs to be compressed to reduce the overall impact of the construction to the area and address safety concerns with existing bridge.

F. Do funding limits restrict when the schedule can start? (Such as the Biennium)? — DBB/GCCM ☐ Yes; DB ☑ No; Goal ☐; Const ☐

Comment [ET13]: Minimize Schedule is a Goal

Comment [ET14]: Answer is no as is not listed as an obstacle or risk

Complexity and Innovation

Justification:

G. Are there significant risks that could be better managed by others than WSDOT? — DB ☑ Yes; DBB/GCCM ☐ No; Goal ☐; Const ☑

Comment [ET15]: See the risks listed in the justification.

Justification: Avoiding Area A impacts, impacts to public and local businesses, impacts to environment, minimize schedule and meet milestones

Comment [ET16]: This supports the goals for minimizing schedule and avoiding impacts.

H. Does the project involve specialty engineering or high-tech designs or have other opportunities for innovation? — DB/GCCM ☑ Yes; DBB ☐ No; Goal ☐; Const ☐

Comment [ET17]: The HOV connector has ITS specialty work

Justification: Bridge construction, Options for design to avoid impact to Environmentally Sensitive Area A, ITS for HOV Connector

I. Does the project require complex phasing and staging with the possibility of high impacts to the public? — DB/GCCM ☑ Yes; DBB ☐ No; Goal ☑; Const ☐

Comment [ET18]: Example Project Delivery Description Worksheet, Major Obstacles during Construction

Justification: Necessary to maintain access for local businesses and the traveling public.

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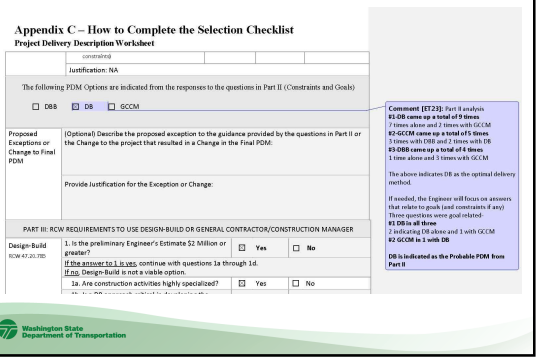
Selection Checklist Part II



Appendix C – How to Complete the Selection Checklist
Project Delivery Description Worksheet

constraints)

Justification: NA

The following PDM Options are indicated from the responses to the questions in Part II (Constraints and Goals)

☐ DBB ☑ DB ☐ GCCM

Comment [ET23]: Part II analysis
#1-DB came up a total of 9 times
7 times alone and 2 times with GCCM
#2-GCCM came up a total of 5 times
3 times with DBB and 2 times with DB
#3-DBB came up a total of 4 times
1 time alone and 3 times with GCCM

The above indicates DB as the optimal delivery method.

If needed, the Engineer will focus on answers that relate to goals (and constraints if any)
Three questions were goal related
#1 DB in all three
2 indicating DB alone and 1 with GCCM
#2 GCCM in 1 with DB

DB is indicated as the Probable PDM from Part II

Proposed Exceptions or Change to Final PDM

(Optional) Describe the proposed exception to the guidance provided by the questions in Part II or the Change to the project that resulted in a Change in the Final PDM:

Provide Justification for the Exception or Change:

PART III: RCW REQUIREMENTS TO USE DESIGN-BUILD OR GENERAL CONTRACTOR/CONSTRUCTION MANAGER

Design-Build RCW 47.20.785

1. Is the preliminary Engineer's Estimate $2 Million or greater? ☑ Yes ☐ No

If the answer to 1 is yes, continue with questions 1a through 1d.
If no, Design-Build is not a viable option.

1a. Are construction activities highly specialized? ☑ Yes ☐ No

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Probable PDM Determination Selection Checklist

- Complete Selection Checklist Part III - RCW Requirements for Alternative PDMs.

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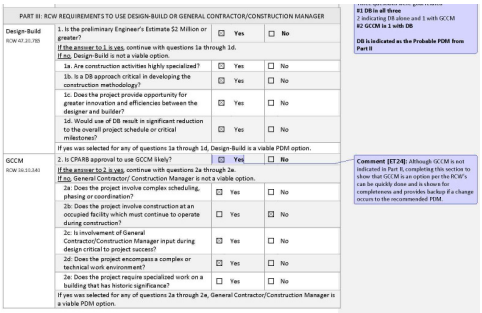
Selection Checklist Part III



PART III: RCW REQUIREMENTS TO USE DESIGN-BUILD OR GENERAL CONTRACTOR/CONSTRUCTION MANAGER

Design-Build RCW 47.20.780	1. Is the preliminary Engineer's Estimate $2 Million or greater?	☑ Yes	☐ No
	If the answer to 1 is yes, continue with questions 1a through 1d. If no, Design-Build is not a viable option.		
	1a. Are construction activities highly specialized?	☑ Yes	☐ No
	1b. Is a DB approach critical in developing the construction methodology?	☑ Yes	☐ No
	1c. Does the project provide opportunity for greater innovation and efficiencies between the designer and builder?	☑ Yes	☐ No
	1d. Would use of DB result in significant reduction to the overall project schedule or critical milestones?	☑ Yes	☐ No
	If yes was selected for any of questions 1a through 1d, Design-Build is a viable PDM option.		
GCCM RCW 39.10.340	2. Is CPARB approval to use GCCM likely?	☑ Yes	☐ No
	If the answer to 2 is yes, continue with questions 2a through 2e. If no, General Contractor/ Construction Manager is not a viable option.		
	2a: Does the project involve complex scheduling, phasing or coordination?	☑ Yes	☐ No
	2b: Does the project involve construction at an occupied facility which must continue to operate during construction?	☐ Yes	☑ No
	2c: Is involvement of General Contractor/Construction Manager input during design critical to project success?	☑ Yes	☐ No
	2d: Does the project encompass a complex or technical work environment?	☑ Yes	☐ No
	2e: Does the project require specialized work on a building that has historic significance?	☐ Yes	☐ No
	If yes was selected for any of questions 2a through 2e, General Contractor/Construction Manager is a viable PDM option.		

R1 DB in all three
2 indicating DB alone and 1 with GCCM
R2 GCCM in 1 with DB

DB is indicated as the Probable PDM from Part II

Comment [ET24]: Although GCCM is not indicated in Part II, completing this section to show that GCCM is an option per the RCW's can be quickly done and is shown for completeness and provides backup if a change occurs to the recommended PDM.

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Probable PDM Determination Selection Checklist

- If:
  - The Selection Checklist did not determine a Probable PDM;
  - The Project Engineer choses additional evaluation;

  Then the Project Engineer will complete the Selection Matrix to determine the Probable PDM.

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Probable PDM Approval Process

- If the Project contract cost is less than $25 Million and complies with the guidance; then the Region reviews and endorses the Probable PDM.

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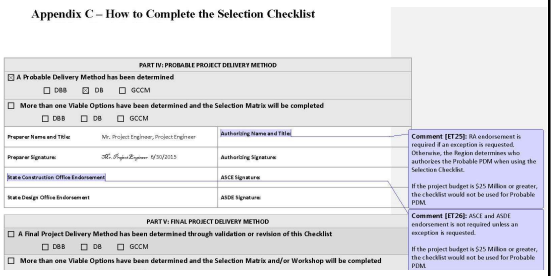
Selection Checklist Part IV



Appendix C – How to Complete the Selection Checklist

PART IV: PROBABLE PROJECT DELIVERY METHOD

☐ A Probable Delivery Method has been determined
☐ DBB ☑ DB ☐ GCCM

☐ More than one Viable Options have been determined and the Selection Matrix will be completed
☐ DBB ☐ DB ☐ GCCM

Preparer Name and Title: Mr. Project Engineer, Project Engineer	Authorizing Name and Title:
Preparer Signature: Mr. Project Engineer 6/30/2015	Authorizing Signature:
State Construction Office Endorsement:	ASCE Signature:
State Design Office Endorsement:	ASDE Signature:

PART V: FINAL PROJECT DELIVERY METHOD

☐ A Final Project Delivery Method has been determined through validation or revision of this Checklist
☐ DBB ☐ DB ☐ GCCM

☐ More than one Viable Options have been determined and the Selection Matrix and/or Workshop will be completed

Comment [ET25]: RA endorsement is required if an exception is requested. Otherwise, the Region determines who authorizes the Probable PDM when using the Selection Checklist.

If the project budget is $25 Million or greater, the checklist would not be used for Probable PDM.

Comment [ET26]: ASCE and ASDE endorsement is not required unless an exception is requested.

If the project budget is $25 Million or greater, the checklist would not be used for Probable PDM.

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Probable PDM Approval Process

- If an exception to the guidance is requested, then;
  - The Regional Administrator endorses the Probable PDM and submits it to HQ; and
  - The Assistant State Design Engineer and Assistant State Construction Engineer also endorse the Probable PDM.
  - If the ASCE/ASDE do not endorse the Probable PDM, the Region will provide the additional information needed to gain the ASCE and ASDE endorsement.

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Questions?

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